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RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/079,478
DATE: 03/07/2002
TIME: 10:08:19
Input Set : A:\UF-178AXC2.txt
Output Set: N:\CRF3\03072002\J079478.raw

3 <110> APPLICANT: Hannah, L. Curtis
 4 Greene, Thomas W.
 6 <120> TITLE OF INVENTION: Heat Stable Mutants of Starch Biosynthesis Enzymes
 8 <130> FILE REFERENCE: UF-178AXC2
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/079,478
 C--> 10 <141> CURRENT FILING DATE: 2002-02-19
 10 <150> PRIOR APPLICATION NUMBER: US 09/312,433
 11 <151> PRIOR FILING DATE: 1999-05-14
 13 <150> PRIOR APPLICATION NUMBER: US 60/085,460
 14 <151> PRIOR FILING DATE: 1998-05-14
 16 <150> PRIOR APPLICATION NUMBER: US 08/972,545
 17 <151> PRIOR FILING DATE: 1997-11-18
 19 <150> PRIOR APPLICATION NUMBER: US 60/031,045
 20 <151> PRIOR FILING DATE: 1996-11-18
 22 <160> NUMBER OF SEQ ID NOS: 36
 24 <210> SEQ ID NO: 1
 25 <211> LENGTH: 33
 26 <212> TYPE: PRT
 27 <213> ORGANISM: HS33 Mutant of Zea mays
 29 <400> SEQUENCE: 1
 31 Leu His Asp Phe Gly Ser Glu Ile Leu Pro Arg Ala Val Leu Asp Tyr
 32 1 5 10 15
 34 Ser Val Gln Ala Cys Ile Phe Thr Gly Tyr Trp Glu Asp Val Gly Thr
 35 20 25 30
 37 Ile
 40 <210> SEQ ID NO: 2
 41 <211> LENGTH: 33
 42 <212> TYPE: PRT
 43 <213> ORGANISM: Zea mays
 45 <400> SEQUENCE: 2
 47 Leu His Asp Phe Gly Ser Glu Ile Leu Pro Arg Ala Val Leu Asp His
 48 1 5 10 15
 50 Ser Val Gln Ala Cys Ile Phe Thr Gly Tyr Trp Glu Asp Val Gly Thr
 51 20 25 30
 53 Ile
 56 <210> SEQ ID NO: 3
 57 <211> LENGTH: 33
 58 <212> TYPE: PRT
 59 <213> ORGANISM: Triticum aestivum
 61 <400> SEQUENCE: 3
 63 Leu His Asp Phe Gly Ser Glu Ile Leu Pro Arg Ala Leu His Asp His
 64 1 5 10 15
 66 Asn Val Gln Ala Tyr Val Phe Thr Asp Tyr Trp Glu Asp Ile Gly Thr

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|---|----|----|----|
| 67 | 20 | 25 | 30 |
| 69 Ile | | | |
| 72 <210> SEQ ID NO: 4 | | | |
| 73 <211> LENGTH: 33 | | | |
| 74 <212> TYPE: PRT | | | |
| 75 <213> ORGANISM: Hordeum vulgare | | | |
| 77 <400> SEQUENCE: 4 | | | |
| 79 Leu His Asp Phe Gly Ser Glu Ile Leu Pro Arg Ala Leu His Asp His | | | |
| 80 1 5 10 15 | | | |
| 82 Asn Val Gln Ala Tyr Val Phe Thr Asp Tyr Trp Glu Asp Ile Gly Thr | | | |
| 83 20 25 30 | | | |
| 85 Ile | | | |
| 87 <210> SEQ ID NO: 5 | | | |
| 88 <211> LENGTH: 33 | | | |
| 89 <212> TYPE: PRT | | | |
| 90 <213> ORGANISM: Solanum tuberosum | | | |
| 92 <400> SEQUENCE: 5 | | | |
| 94 Ser Asn Asp Phe Gly Ser Glu Ile Leu Pro Ala Ala Ile Asp Asp Tyr | | | |
| 95 1 5 10 15 | | | |
| 97 Asn Val Gln Ala Tyr Ile Phe Lys Asp Tyr Trp Glu Asp Ile Gly Thr | | | |
| 98 20 25 30 | | | |
| 100 Ile | | | |
| 102 <210> SEQ ID NO: 6 | | | |
| 103 <211> LENGTH: 26 | | | |
| 104 <212> TYPE: PRT | | | |
| 105 <213> ORGANISM: HS40 Mutant of Zea mays | | | |
| 107 <400> SEQUENCE: 6 | | | |
| 109 Ala Gly Lys Val Pro Ile Gly Ile Gly Arg Asn Ile Lys Ile Arg Asn | | | |
| 110 1 5 10 15 | | | |
| 112 Cys Ile Ile Asp Met Asn Ala Arg Ile Gly | | | |
| 113 20 25 | | | |
| 116 <210> SEQ ID NO: 7 | | | |
| 117 <211> LENGTH: 26 | | | |
| 118 <212> TYPE: PRT | | | |
| 119 <213> ORGANISM: Zea mays | | | |
| 121 <400> SEQUENCE: 7 | | | |
| 123 Ala Gly Lys Val Pro Ile Gly Ile Gly Arg Asn Thr Lys Ile Arg Asn | | | |
| 124 1 5 10 15 | | | |
| 126 Cys Ile Ile Asp Met Asn Ala Arg Ile Gly | | | |
| 127 20 25 | | | |
| 130 <210> SEQ ID NO: 8 | | | |
| 131 <211> LENGTH: 26 | | | |
| 132 <212> TYPE: PRT | | | |
| 133 <213> ORGANISM: Triticum aestivum | | | |
| 135 <400> SEQUENCE: 8 | | | |
| 137 Glu Gly Lys Val Pro Ile Gly Val Gly Glu Asn Thr Lys Ile Ser Asn | | | |
| 138 1 5 10 15 | | | |
| 140 Cys Ile Ile Asp Met Asn Ala Arg Ile Gly | | | |
| 141 20 25 | | | |

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Input Set : A:\UF-178AXC2.txt
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144 <210> SEQ ID NO: 9
145 <211> LENGTH: 26
146 <212> TYPE: PRT
147 <213> ORGANISM: Hordeum vulgare
149 <400> SEQUENCE: 9
151 Glu Gly Lys Val Pro Ile Gly Val Gly Glu Asn Thr Lys Ile Ser Asn
152 1 5 10 15
154 Cys Ile Ile Asp Met Asn Ala Arg Ile Gly
155 20 25
158 <210> SEQ ID NO: 10
159 <211> LENGTH: 26
160 <212> TYPE: PRT
161 <213> ORGANISM: Solanum tuberosum
163 <400> SEQUENCE: 10
165 Glu Gly Lys Val Pro Ile Gly Ile Gly Glu Asn Thr Lys Ile Arg Lys
166 1 5 10 15
168 Cys Ile Ile Asp Lys Asn Ala Lys Ile Gly
169 20 25
172 <210> SEQ ID NO: 11
173 <211> LENGTH: 11
174 <212> TYPE: PRT
175 <213> ORGANISM: Spinacia oleracea
177 <400> SEQUENCE: 11
179 Ile Lys Asp Ala Ile Ile Asp Lys Asn Ala Arg
180 1 5 10
183 <210> SEQ ID NO: 12
184 <211> LENGTH: 20
185 <212> TYPE: PRT
186 <213> ORGANISM: TS48 Mutant of Zea mays
188 <400> SEQUENCE: 12
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191 1 5 10 15
193 Gly Ala Asp Ile
194 20
197 <210> SEQ ID NO: 13
198 <211> LENGTH: 20
199 <212> TYPE: PRT
200 <213> ORGANISM: Zea mays
202 <400> SEQUENCE: 13
205 Cys Ser Arg Val Ser Ser Gly Cys Glu Leu Lys Asp Ser Val Met Met
206 1 5 10 15
208 Gly Ala Asp Ile
209 20
212 <210> SEQ ID NO: 14
213 <211> LENGTH: 20
214 <212> TYPE: PRT
215 <213> ORGANISM: Triticum aestivum
217 <400> SEQUENCE: 14
219 Arg Ser Arg Leu Asn Ser Gly Ser Glu Leu Lys Asn Ala Met Met Met

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Input Set : A:\UF-178AXC2.txt
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220 1 5 10 15
222 Gly Ala Asp Ser
223 20
226 <210> SEQ ID NO: 15
227 <211> LENGTH: 20
228 <212> TYPE: PRT
229 <213> ORGANISM: Hordeum vulgare
231 <400> SEQUENCE: 15
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234 1 5 10 15
236 Gly Ala Asp Ser
237 20
240 <210> SEQ ID NO: 16
241 <211> LENGTH: 12
242 <212> TYPE: PRT
243 <213> ORGANISM: Oryza sativa
245 <400> SEQUENCE: 16
247 Ser Ser Arg Val Ser Ser Gly Cys Glu Leu Lys Ile
248 1 5 10
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253 <212> TYPE: PRT
254 <213> ORGANISM: TS60 Mutant of Zea mays
256 <400> SEQUENCE: 17
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259 1 5 10 15
261 Gln Ala Cys Ile Phe Thr Gly Tyr
262 20
265 <210> SEQ ID NO: 18
266 <211> LENGTH: 24
267 <212> TYPE: PRT
268 <213> ORGANISM: Zea mays
270 <400> SEQUENCE: 18
272 Asp Phe Gly Ser Glu Ile Leu Pro Arg Ala Val Leu Asp His Ser Val
273 1 5 10 15
275 Gln Ala Cys Ile Phe Thr Gly Tyr
276 20
279 <210> SEQ ID NO: 19
280 <211> LENGTH: 24
281 <212> TYPE: PRT
282 <213> ORGANISM: Triticum aestivum
284 <400> SEQUENCE: 19
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287 1 5 10 15
289 Gln Ala Tyr Val Phe Thr Asp Tyr
290 20
293 <210> SEQ ID NO: 20
294 <211> LENGTH: 24
295 <212> TYPE: PRT

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296 <213> ORGANISM: Hordeum vulgare
298 <400> SEQUENCE: 20
300 Asp Phe Gly Ser Glu Ile Leu Pro Arg Ala Leu His Asp His Asn Val
301 1 5 10 15
303 Gln Ala Tyr Val Phe Thr Asp Tyr
304 20
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308 <211> LENGTH: 25
309 <212> TYPE: PRT
310 <213> ORGANISM: Oryza sativa
312 <400> SEQUENCE: 21
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315 1 5 10 15
317 Lys Val Ala Cys Val Phe Thr Glu Tyr
318 20 25
321 <210> SEQ ID NO: 22
322 <211> LENGTH: 25
323 <212> TYPE: PRT
324 <213> ORGANISM: TS60 Mutant of Zea mays
326 <400> SEQUENCE: 22
328 Glu Asp Val Gly Thr Ile Lys Ser Phe Phe Asp Ala Asn Leu Val Leu
329 1 5 10 15
331 Thr Glu Gln Pro Ser Lys Phe Asp Phe
332 20 25
335 <210> SEQ ID NO: 23
336 <211> LENGTH: 25
337 <212> TYPE: PRT
338 <213> ORGANISM: Zea mays
340 <400> SEQUENCE: 23
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343 1 5 10 15
345 Thr Glu Gln Pro Ser Lys Phe Asp Phe
346 20 25
349 <210> SEQ ID NO: 24
350 <211> LENGTH: 25
351 <212> TYPE: PRT
352 <213> ORGANISM: Triticum aestivum
354 <400> SEQUENCE: 24
356 Glu Asp Ile Gly Thr Ile Arg Ser Phe Phe Asp Ala Asn Met Ala Leu
357 1 5 10 15
359 Cys Glu Gln Pro Pro Lys Phe Glu Phe
360 20 25
363 <210> SEQ ID NO: 25
364 <211> LENGTH: 25
365 <212> TYPE: PRT
366 <213> ORGANISM: Hordeum vulgare
368 <400> SEQUENCE: 25
370 Glu Asp Ile Gly Thr Ile Arg Ser Phe Phe Asp Ala Asn Met Ala Leu
371 1 5 10 15

VERIFICATION SUMMARY

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L:10 M:270 C: Current Application Number differs, Replaced Current Application No

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date